

TECHNICAL NOTE

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Bureau of Land Management U.S. DEPARTMENT OF THE INTERIOR

BOLO-BALL DBH TAPE ATTACHMENT

An employee suggestion submitted by Robert Van Sickler of the Burns Oregon District recommends this bolo technique to be used in measuring the DBH of trees. Mr. Van Sickler noted that he and other foresters had experienced some difficulty and inconvenience in getting the tape around large trees without walking around the tree or whipping the tape in a side-hand flyrod fashion. This bolo technique should not only save steps but also prevent damage to tape that often occurs when the flyrod method is used.

NOTE: The suggestor points out that eighteen months of experience and experimentation indicate that a weight and string will not give the same success as a leather thong.

Below are steps to be followed in making the bolo balls.

List of Materials:

- 1 - Ladies glove metal clip
- 1 - 2 1/2" square piece of sheet metal (tin can thickness)
- 1 - leather thong (63" long boot lace)
- 1 - small piece solder and soldering iron.
- 1 - small can varnish or lacquer
- 1 - 10" piece cotton string

Steps:

1. Cut out - piece of sheet metal in shape and size shown in Figure 1.
2. Fold - Sheet metal as shown in figures 1 and 2.
3. Insert - Prongs on sheet metal clip through eye of DBH tape hook.
4. Attach - Ladies glove clip to top side of hook.
5. Fold - surfaces A, B, & C of sheet metal around hook and ladies glove clip as illustrated in figures 2, 3, & 4.
6. Solder - Exposed edges of sheet metal clip to hook and bottom of ladies glove clip.
7. Double - Leather thong in half.
8. Wrap & Tie - String around doubled thong 3/8" below fold in thong.
9. Tie - Half hitches in each end of thong until bolo is 15 inches long.
10. Dip - both balls and string tied loop into varnish or lacquer to prevent unraveling.

It may later be necessary to tie a knot in the thong from 4" to 6" below hook depending on users best results. Completed DBH tape and bolo should resemble the one shown in figure 5.

The suggestor and others have found the following to be the best method of using the bolo-ball device:

"(1) Size tree up, never use too much tape so that balls strike you. (2) When the big tree on the steep side slope comes up and the 5' or so on the D-tape will not reach around from up hill side, then go way around and swing the D-tape across that steep part. When the tape is hooked walk around to the other side and feel with your hand for the thong, holding the D-tape in the other hand. Pull both thong and D-tape around to DBH. (3) The method of throwing the bolo balls (as my fellow foresters call them) is quite simple. Address the tree about 6" to 1' away. Hold the D-tape between thumb and middle finger, the index finger along tape. Using the fly fishing motion side-arm style, from a position of the arm bent and the hand behind the head, the tape about 4" to 6" from the back, straighten out the arm in a circular motion until the arm is straight out. Continue the arm motion in a follow-through until the hand and arm almost come in contact with the tree. When you hear the ball strike the tree, jerk back, bending the wrist back, and the arm. If first trial does not work pull a little before the ball strikes. After a little practice you should hook on the first or second throw. Occasionally on very fine loose bark Ponderosa Pine it may take a third try; but never more, if you have the proper motion and jerk back. This little addition has saved me many steps and probably will many more."

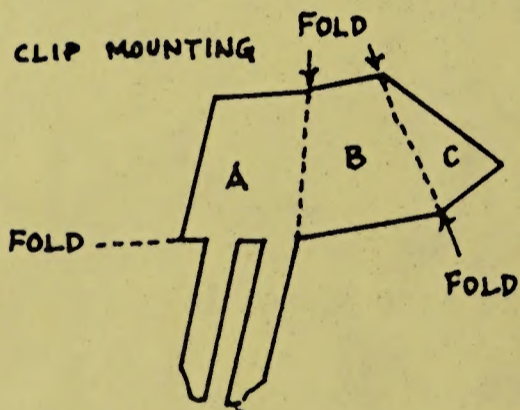


Fig. 1

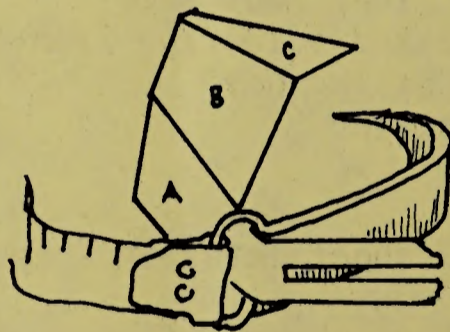


Fig. 2

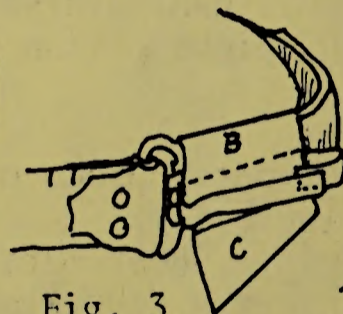


Fig. 3

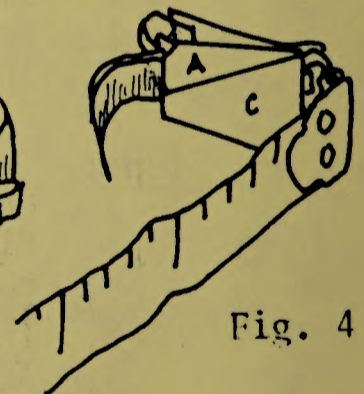
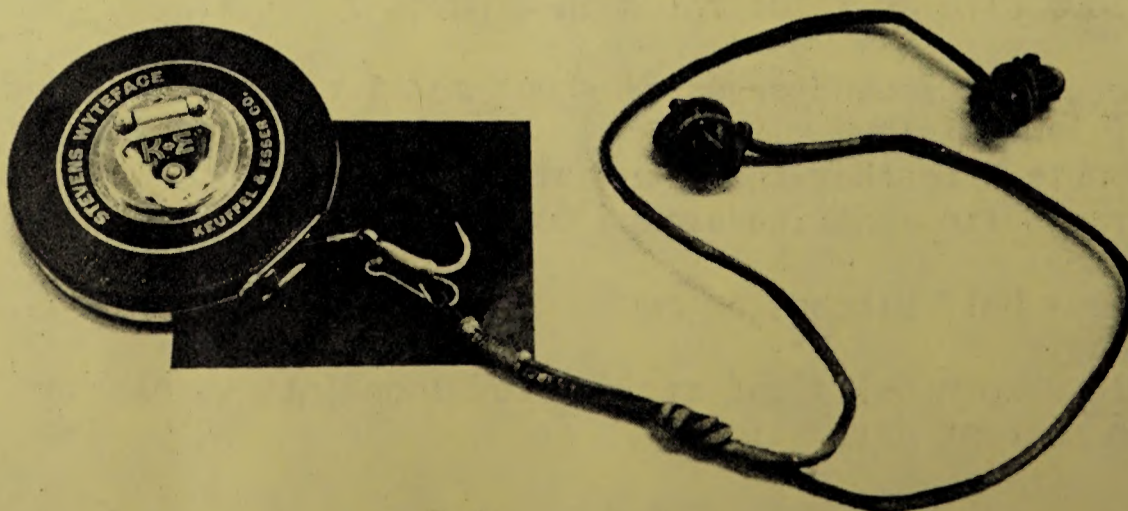


Fig. 4



Completed Bolo Ball